

REMARKS

Claims 1-20 are pending.

Claims 1, 7-9 and 17-20 are amended.

Amended Abstract

The Applicants have submitted a replacement abstract on a clean sheet of paper. The Examiner objects to the abstract because the abstract recites certain phrases that are implied. The Applicants have deleted the word relates in the first sentence of the abstract and replaced with "is".

Amended Specification

The Applicants have amended the specification to include Section headings: Field of the Invention, Background of the Invention, Detailed Description of the Invention.

No new matter has been added.

35 USC 112, second paragraph

Claims 1-20 are rejected under 35 USC 112, second paragraph.

A. Claim 1 has been amended to clarify that pigment A comprises a A(a) core and A(b) at least one coating. Pigment B comprises a core B(a). The Applicants believe the amendment to claim 1 to eliminate any misunderstanding of the scope of claim 1.

B. The Examiner believes the term "transparent" in claim 1 renders the claims indefinite.

The Applicants believe the term "transparent" is well-known to the artskilled and needs no further explanation.

When radiation of initial intensity I_0 strikes the surface of a (more or less transparent) material, a part of the radiation (intensity I_T) is transmitted under refraction while another part (intensity I_R) is

reflected. The initial intensity is the sum of the intensities of the transmitted and reflected radiation ($I_0 = I_T + I_R$), provided that there is no absorption.

Please find enclosed a quotation of the "Handbook of Chemistry and Physics", wherein transparency is defined as the ratio of the intensity of the transmitted light to that of the initial light. According to this definition, an ideal transparent material ($I_T = I_0$) exhibits a transparency of 1 (or 100%, respectively) and a reflectivity of 0. This correlation is referred to in the penultimate paragraph of the present disclosure on page 11, where the transparency of at least 50% is equated to a reflectivity of at most 50 %.

- C. Applicants have amended claims 1, 8 and 9 by replacing the terms "substantially consists of" by "consists essentially of".

Consists essentially of by convention means that other components may be present, but they should not appreciably impact the properties of the composition. As the term "consists essentially of" has this well recognized meaning, the Applicants assume this amendment will allow the Examiner to determine the metes and bounds of the cited claims.

- D. Applicants have not amended claims 4 or 5. They are both dependent on claim 1 and as claim 1 was amended to clarify what is meant by pigment A and pigment B, there should now be no confusion. Claims 4 and 5 refer back to Pigment A. Claim 1 defines pigment A as comprising A(a) and A(b).
- E. Applicants have amended claim 7 to add a comma making the antecedent basis for B(b) more clear. Thus there is antecedent basis for "the layer B(b)" in claim 9. The antecedent basis was always in claim 7.
- F. Applicants have amended claims 11, 19 and 10 by changing the article "the" to "a".

The Applicants believe the above amendments address all of the Examiners' 112, paragraph 2 rejections.

No new matter is added.

It is respectfully submitted that all the claims 1-20 submitted for reconsideration are in good formal order. Reconsideration and withdrawal of the rejection of claims under 35 U.S.C. §112, second paragraph is therefore solicited.

Reconsideration and withdrawal of the rejection of claims 1-20 is respectfully solicited in light of the remarks and amendments *supra*.

Since there are no other grounds of objection or rejection, passage of this application to issue with claims 1-20 is earnestly solicited.

Applicants submit that the present application is in condition for allowance. In the event that minor amendments will further prosecution, Applicants request that the examiner contact the undersigned representative.

Respectfully submitted,



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Enclosures: Handbook of Chemistry and Physics pages concerning Transparency and Replacement Abstract.



Handbook OF Chemistry and Physics

A Ready-Reference Book of Chemical and Physical Data

FORTY-EIGHTH EDITION

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In collaboration with a large number of professional chemists and physicists whose assistance is acknowledged in the list of general collaborators and in connection with the particular tables or sections involved.

Published by

THE CHEMICAL RUBBER CO.

18901 Cranwood Parkway, Cleveland, Ohio, 44128

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MAGNETIC ROTATORY POWER (Continued)

Name	λ	t	ρ_M	$10^3[\alpha]_M^{\lambda,t}$	$10^3\lambda^2$ Verdet
1-Chloronaphthalene (a-chloronaphthalene)	578	18.0	28.15	201.5	4.91
1-Bromonaphthalene (a-bromonaphthalene)	578	20.0	31.05	222.0	5.19
β -Naphthol (2-hydroxynaphthalene)	578	136.0	27.1	194.0	4.80
1-Naphthylamine (a-naphthylamine)	578	32.6	37.23	256.1	6.84
Isocugenol (4-propenylguaiacol)	539	19.3	21.44	147.5	3.55
Eugenol (4-allylguaiacol)	539	15.4	18.72	128.8	2.88
Benzoic acid propylester (n-propylbenzoate)	539	15.4	14.57	102.2	2.20
<i>o</i> -Toluic acid ethylester	539	15.2	15.06	103.5	2.25
<i>p</i> -Toluic acid ethylester	539	15.0	14.74	101.4	2.18
α -Toluic acid ethylester (ethylphenylacetate)	539	14.0	14.99	103.1	2.23
Methylsalicylic acid ethylester	539	13.6	17.14	117.9	2.50
N,N-Diethylaniline (N-phenyldiethylamine)	539	15.3	25.16	173.1	3.74
Cumphenol	539	14.0	9.26	63.7	1.56
α -Terpineol	539	16.0	10.34	74.6	1.51
Citronellal	539	14.5	11.48	79.0	1.22
Dipropylsuccinate	539	11.4	10.36	71.3	1.24
Tartaric acid dipropylester (propyltartrate)	539	15.4	10.83	74.5	1.40
Menthol	539	45.2	10.51	72.3	1.31
Undecane	539	20.5	11.65	80.1	1.32
Dodecane	539	21.5	12.71	87.4	1.32
Saccharose 19H ₂ O (1 M aqueous sol.)	539	15.0	12.59	86.6
Maltose 20H ₂ O (1 M aqueous sol.)	539	15.0	12.59	87.3
Lactose 41H ₂ O (1 M aqueous sol.)	539	15.4	12.71	87.5
Phenanthrene	578	100.0	39.7	284.0	5.84
Hexadecane	539	15.0	16.8	115.6	1.35
1,2-Diphenylbenzene	539	15.0	40.2	276.3	4.70
1,3-Diphenylbenzene (<i>m</i> -phenyldiphenyl)	539	15.0	41.0	282.4
1,6-Diphenylhexane	539	20.0	2.75

TRANSPARENCY TO OPTICAL DENSITY CONVERSION TABLE

Transparency of a layer of material is defined as the ratio of the intensity of the transmitted light to that of the incident light. Opacity is the reciprocal of the transparency. Optical density is the common logarithm of the opacity.

Thus,

$$\text{Transparency} = \frac{I_t}{I_i}$$

$$\text{Opacity} = \frac{1}{\text{Transparency}} = \frac{I_i}{I_t}$$

$$\text{Optical density} = \log_{10} \left(\frac{I_i}{I_t} \right)$$

where I_i = Intensity of incident light
 I_t = Intensity of transmitted light.

Trans.	Density	Trans.	Density	Trans.	Density	Trans.	Density	Trans.	Density	Trans.	Density	Trans.	Density
.030	1.523	.060	1.222	.090	1.046	.120	.9208	.150	.8239	.180	.7447	.210	.6778
.031	1.509	.061	1.215	.091	1.041	.121	.9172	.151	.8210	.181	.7423	.211	.6757
.032	1.495	.062	1.208	.092	1.036	.122	.9137	.152	.8182	.182	.7399	.212	.6737
.033	1.482	.063	1.201	.093	1.032	.123	.9101	.153	.8153	.183	.7375	.213	.6716
.034	1.469	.064	1.194	.094	1.027	.124	.9066	.154	.8125	.184	.7352	.214	.6696
.035	1.456	.065	1.187	.095	1.022	.125	.9031	.155	.8097	.185	.7328	.215	.6676
.036	1.444	.066	1.180	.096	1.018	.126	.8996	.156	.8069	.186	.7305	.216	.6655
.037	1.432	.067	1.174	.097	1.013	.127	.8962	.157	.8041	.187	.7282	.217	.6635
.038	1.420	.068	1.168	.098	1.009	.128	.8928	.158	.8013	.188	.7258	.218	.6615
.039	1.409	.069	1.161	.099	1.004	.129	.8894	.159	.7986	.189	.7235	.219	.6596
.040	1.398	.070	1.155	.100	1.000	.130	.8861	.160	.7959	.190	.7213	.220	.6576
.041	1.387	.071	1.149	.101	.9957	.131	.8827	.161	.7932	.191	.7190	.221	.6556
.042	1.377	.072	1.143	.102	.9914	.132	.8794	.162	.7905	.192	.7167	.222	.6536
.043	1.367	.073	1.137	.103	.9872	.133	.8761	.163	.7878	.193	.7144	.223	.6517
.044	1.357	.074	1.131	.104	.9830	.134	.8729	.164	.7852	.194	.7122	.224	.6498
.045	1.347	.075	1.125	.105	.9788	.135	.8697	.165	.7825	.195	.7100	.225	.6478
.046	1.337	.076	1.119	.106	.9747	.136	.8665	.166	.7799	.196	.7077	.226	.6459
.047	1.328	.077	1.114	.107	.9706	.137	.8633	.167	.7773	.197	.7055	.227	.6440
.048	1.319	.078	1.108	.108	.9666	.138	.8601	.168	.7747	.198	.7033	.228	.6421
.049	1.310	.079	1.102	.109	.9626	.139	.8570	.169	.7721	.199	.7011	.229	.6402
.050	1.301	.080	1.097	.110	.9586	.140	.8539	.170	.7696	.200	.6990	.230	.6383
.051	1.292	.081	1.092	.111	.9547	.141	.8508	.171	.7670	.201	.6968	.231	.6364
.052	1.284	.082	1.086	.112	.9508	.142	.8477	.172	.7645	.202	.6946	.232	.6345
.053	1.276	.083	1.081	.113	.9469	.143	.8447	.173	.7620	.203	.6925	.233	.6326
.054	1.268	.084	1.076	.114	.9431	.144	.8416	.174	.7594	.204	.6904	.234	.6308
.055	1.260	.085	1.071	.115	.9393	.145	.8386	.175	.7570	.205	.6882	.235	.6289
.056	1.252	.086	1.066	.116	.9356	.146	.8356	.176	.7545	.206	.6861	.236	.6271
.057	1.244	.087	1.060	.117	.9318	.147	.8327	.177	.7520	.207	.6840	.237	.6253
.058	1.237	.088	1.055	.118	.9281	.148	.8297	.178	.7496	.208	.6819	.238	.6234
.059	1.229	.089	1.051	.119	.9244	.149	.8268	.179	.7471	.209	.6799	.239	.6216